

✓ Measured

CLAIMS

1. An elastic doll comprising:

a trunk, arms and legs in which a skeleton member is embedded;

5 said skeleton member including flexible first cores and second cores made of rigid synthetic resin;

said first cores and second cores being connected to each other;

10 said skeleton member being covered with a skin/flesh member made of soft synthetic resin.

✓ 2. An elastic doll as defined in claim 1, wherein said first cores are made of metal; and

15 said skeleton member is constituted by said first cores which are arranged at sites in the doll corresponding to joints and said second cores which are arranged at sites in the doll corresponding to distal ends thereof and positions between joints adjacent to each other.

3. An elastic doll as defined in claim 2, wherein said first cores are covered with synthetic resin.

20 4. An elastic doll as defined in claim 3, wherein the synthetic resin for covering said first cores and the soft synthetic resin for said skin/flesh member are each a thermoplastic elastomer.

25 5. An elastic doll as defined in ~~any one of claims 1 to~~
4, further comprising a neck having a part of said skeleton member embedded therein;

said first cores each being constituted of a wire;

said first cores arranged in said neck, said trunk and said arms and legs being different in diameter from each other.

30 6. An elastic doll as defined in ~~any one of claims 1 to~~
4, wherein said skeleton member is integrally formed.

✓ 7. An elastic doll as defined in ~~any one of claims 1 to~~
4, wherein said skeleton member is formed by integrally coupling skeleton components previously formed separately from each other

to each other.

8. An elastic doll as defined in ~~any one of~~ claims 1 to 4, wherein said first cores in said arms and legs each have portions arranged in parallel to each other.

5 9. An elastic doll as defined in ~~any one of~~ claims 1 to 4, wherein said first cores are each bent at ends thereof.

10 10. An elastic doll as defined in ~~any one of~~ claims 1 to 4, wherein said first cores are each constituted by an elongated plate-like member made of metal.

10 11. An elastic doll as defined in ~~any one of~~ claims 1 to 4, wherein said first cores are each formed to have a coil-like shape.

15 12. An elastic doll as defined in claim 1, wherein said second cores are each formed with a fixing shaft arranged so as to extend therefrom to a surface of the doll;

said fixing shaft being made of a material which is compatible with the soft synthetic resin for said skin/flesh member.

20 13. An elastic doll as defined in claim 12, wherein said skeleton member includes a foot skeleton section incorporated in each of said legs:

said foot skeleton section being exposed at a portion thereof corresponding to a sole of a foot of each of said legs from the sole.

25 14. An elastic doll as defined in claim 12 or 13, wherein said first cores are each made of metal;

said skeleton member is constituted by said first cores which are arranged at sites in the doll corresponding to joints and said second cores which are arranged at sites in the doll corresponding to distal ends thereof and positions between joints adjacent to each other; and

said trunk includes three of said first cores arranged therein so as to be vertically extended;

an outer two of said three first cores being inwardly

curved with respect to each other.

✓15. An elastic doll as defined in claim 12 ~~or 13~~, wherein said second cores are formed at a place thereon facing the joint with small projections.

5 16. An elastic doll comprising:

a trunk, arms and legs in which a skeleton member is embedded;

10 said skeleton member including first cores made of metal and arranged at sites in the doll corresponding to joints and second cores made of rigid synthetic resin and arranged at sites in the doll corresponding to distal ends thereof and positions between joints adjacent to each other;

said first cores and second cores being connected to each other;

15 said first cores each being covered with synthetic resin; said skeleton member being covered with a skin/flesh member made of soft synthetic resin.

17. An elastic doll comprising:

20 a trunk, arms and legs in which a skeleton member is embedded;

said skeleton member including cores made of rigid synthetic resin;

✓ said skeleton member being covered with a skin/flesh member made of soft synthetic resin;

25 said cores made of rigid synthetic resin each being formed with a fixing shaft arranged so as to extend therefrom to a surface of the doll;

said fixing shaft being compatible with the soft synthetic resin covering said skeleton member.

30 Sub B3 18. A method for manufacturing an elastic doll comprising the steps of:

insert molding second cores on each of flexible first cores so as to be spaced from each other using a skeleton forming material, to thereby form a skeleton member including said first

and second cores connected to each other; and

insert molding a skin/flesh member on said skeleton member using a skin/flesh forming material.

5 19. A method for manufacturing an elastic doll as defined in claim 18, wherein said skeleton forming material and skin/flesh forming material are compatible with each other.

10 20. A method for manufacturing an elastic doll as defined in claim 18 or 19, wherein said skeleton forming material is polyolefin resin and said skin/flesh forming material is an elastomer.

15 21. A method for manufacturing an elastic doll as defined in claim 18 or 19, wherein the elastic doll includes a trunk, arms and legs in which said skeleton member is embedded; said skeleton forming material being rigid synthetic resin and said skin/flesh forming member being soft synthetic resin;

said step of insert molding said second cores includes forming fixing shafts which extend from said second cores to a surface of the doll; and

20 22. said step of insert molding said skin/flesh member includes arranging said skeleton member in a mold for molding the skin/flesh member, fixing said fixing shafts on mating surfaces of said mold to stabilize said skeleton member and injecting the soft synthetic resin into said mold,

25 further comprising the steps of removing portions of said fixing shafts projected from the surface of the doll after molding and treating marks left on the surface of the doll due to removal of the projected portions of said fixing shafts.

22. A method for manufacturing an elastic doll as defined in claim 21, wherein said step of treating said marks is carried out by melting the surface of the doll.

23. A method for manufacturing an elastic doll as defined in claim 21, wherein said skeleton member includes a foot skeleton section incorporated in each of said legs; and

said step of insert molding said skin/flesh member includes directly abutting a rear surface of a distal end of each of said second cores corresponding to said foot skeleton section against an inner surface of molding spaces in the mold, to thereby securely hold said second cores therein.

5 24. A method for manufacturing an elastic doll as defined in claim 21, wherein said first cores are each made of metal;

10 said skeleton member is constituted by said first cores which are arranged at sites in the doll corresponding to joints and said second cores which are arranged at sites in the doll corresponding to distal ends thereof and positions between joints adjacent to each other; and

15 said trunk includes three of said first cores arranged therein so as to be vertically extended;

 an outer two of said three first cores being inwardly curved with respect to each other.

20 25. A method for manufacturing an elastic doll as defined in claim 21, wherein said second cores are formed at a place thereon facing a joint with small projections.

25 26. A method for manufacturing an elastic doll as defined in claim 21, wherein said fixing shafts are each arranged at a site in the doll at which an injection pressure of the soft synthetic resin is unstable when the soft synthetic resin is injected into said mold.

b6 27. A method for manufacturing an elastic doll which includes a trunk, arms and legs in which a skeleton member is embedded, comprising the steps of:

30 providing cores made of rigid synthetic resin to constitute said skeleton member wherein fixing shafts are formed to extend from said cores to a surface of the doll;

 arranging said skeleton member in a mold and fixing said fixing shafts on mating surfaces of said mold to stabilize said skeleton member;

5

injecting soft synthetic resin into said mold; and
removing portions of said fixing shafts projected from
the surface of the doll after molding and treating marks left on
the surface of the doll due to removal of the projected portions
of said fixing shafts.

28. A method for manufacturing an elastic doll as
defined in claim 27, wherein said treating of said marks is
carried out by melting the surface of the doll.

10

29. A method for manufacturing an elastic doll as
defined in claim 27, wherein said skeleton member includes a foot
skeleton section incorporated in each of said legs; and
a rear surface of a distal end of each of said cores
corresponding to said foot skeleton section is directly abutted
against an inner surface of molding spaces in the mold, to
thereby be securely held therein.

15

30. A method for manufacturing an elastic doll as
defined in claim 27, wherein said skeleton member is constituted
by first cores made of metal and arranged at sites in the doll
corresponding to joints and second cores made of rigid synthetic
resin and arranged at sites in the doll corresponding to distal
ends thereof and positions between joints adjacent to each other;
and

25

said trunk includes three of said first cores arranged
therein so as to be vertically extended;

an outer two of said three first cores being inwardly
curved with respect to each other.

30

31. A method for manufacturing an elastic doll as
defined in claim 27, wherein the cores of said skeleton member
are formed at a place thereon facing a joint with small
projections.

32. A method for manufacturing an elastic doll as
defined in claim 27, wherein said fixing shafts are each arranged
at a site in the doll at which an injection pressure of the soft
synthetic resin is unstable when the soft synthetic resin is

injected into said mold.

add a1 →
add b1